Rusca M., Alda-Vidal C., Kooy M., "Sanitation Justice? The multiple dimensions of urban sanitation inequalities" in Water Justice, Cambridge University Press: Cambridge, 2017.

Chapter 11:
Sanitation Justice? The multiple dimensions of urban sanitation inequalities

Maria Rusca, Cecilia Alda-Vidal, Michelle Kooy

11. 1 Introduction

The launch of the Water and Sanitation Decade (1980-1990) marked the first attempt to place urban sanitation within the development agendas of national governments and international organizations. Since then, the inclusion of sanitation within the Millennium Development Goals (MDGs), the Sustainable Development Goals, and global campaigns such as the UN Sanitation Year (2008), the End of Open Defecation Campaign, and World Toilet Day have institutionalised sanitation as one of the core development goals until 2030 and beyond. The results of many of these sanitation development initiatives are however disappointing. Regional statistics show alarming results for Sub-Saharan Africa, where urban population growth has outpaced gains in sanitation coverage since the 1990s; 14 out of 46 countries declined in sanitation coverage (UNICEF/WHO, 2015: 17). At the conclusion of the MDGs inequalities in access to sanitation between rich and poor urban dwellers persist in the majority of countries (UNICEF/WHO 2015).

Depressing as this is, the MDGs have only focused on distributive outcomes (access to infrastructure), overlooking other dimensions of sanitation inequality. Failing to address these dimensions hampers development interventions which aim to reduce these inequalities: sub-surface flows of untreated wastewaters contaminating shallow groundwater sources of urban poor settlements displaces health risks onto the poorest, and reduces developmental opportunities for children and adults who themselves may already be using "improved" sanitation services (Graham and Polizzotto, 2013); construction of onsite sanitation infrastructure and improved access to a latrine without provision of emptying and sludge removal services compromises long term health benefits of "improved" sanitation (Jenkins et al., 2015; Tsinda et al., 2013). Finally, dimensions of access must include consideration of safety and comfort in addition to any particular needs of urban poor residents who are marginalized by age, disabilities, gender, or other social relations so that they can use the infrastructure provided (Hulland et al., 2015; Wilbur and Jones, 2014). Ignoring these dimensions of environmental and social inequalities can reverse any positive gains in terms of increased distribution of infrastructure.

In this chapter, we develop the concept of sanitation justice to capture these dimensions of inequalities and their relations, which are often overlooked in the debates on development targets for sanitation. In Section 2 we briefly review analyses of inequalities in relation to sanitation already present in the ecological justice literature, specifically urban political ecology and environmental justice. We draw from this literature to define three dimensions of sanitation justice: distributive, procedural, and recognitional justice. In Section 3 of the chapter we apply the dimension of distributive justice to go beyond the usual analysis of inequalities in *infrastructure* coverage. Examining the dominant infrastructure model used to increase access for low income urban residents we identify additional dimensions of distributional inequalities related to the sanitation *services* required for onsite sanitation infrastructure systems. In Section 4 we apply the dimension of *procedural justice* to examine fairness of institutional processes and inclusiveness of decision making processes: *by whom* sanitation development targets are set, and *with whom* sanitation outcomes are to be achieved. Tracing the decisions made through a global sanitation policy reform process we look at who is included in defining what is "adequate" or "improved" sanitation. In Section 5 we apply the dimension of *recognitional justice* to identify the social and

relational factors that influence individuals' disproportionate exposure to environmental harm. Seeing sanitation as dignity requires recognition of social categories of gender, age, disability and sexuality as they shape particular sanitary needs, and as they reflect the stigmatisation undervaluing some people and places.

Across all of these three dimensions of justice, we apply the concept to examine how sanitation inequalities are addressed – or not – through the current development approaches and policy processes shaping sanitation interventions in cities of sub-Saharan Africa. We look specifically at sanitation interventions in the low-income settlements of Kawempe District, in Kampala, Uganda. This material is drawn from semi-structured interviews held with local government, residents, donors, and international and local NGOs in 2011. Interview material is complemented with a documentary analysis of project reports and policy documents of the World Bank and other development agencies, including NGOs and CBOs, involved in in the water and sanitation sector at global and local scale.

11.2 Ecological Justice Frameworks and Sanitation

Urban political ecology (UPE) is a loosely defined body of scholarship concerned with the social processes and relations shaping the production of environmental problems which are unevenly experienced. As such, UPE is concerned with the distribution of both environmental resources, and environmental risks, foregrounding the analysis of social relations shaping environmental inequalities (Cook and Swyngendouw, 2012; Heynen et al., 2006; Swyngedouw, 2004). For this, in UPE, nature and society are recognized as co-produced, meaning environmental problems cannot be understood independently of social processes, and vice versa. This is useful for thinking through urban wastewaters, in that it highlights the role of social relations and processes producing the contaminated flows. UPE also provides us with a more complex understanding of distributional justice – the production of environmental risks may not be spatially contiguous with its environmental impacts, as these are unevenly distributed within urban/peri-urban/rural zones.

The use of environmental justice (EJ) as a framework to understand processes of uneven urbanization in African cities is less common than in literature of UPE or water justice, where analyses of inequalities and injustice in relation to water distribution are much more developed. The majority of EJ scholarship in relation to sanitation has focused on US-based cases of social exclusion from wastewater treatment and solid waste management, the siting of these facilities and the racialized nature of the resulting uneven distributions of costs and benefits (Bullard, 1983; Bullard et al., 2008; Perreault et al., 2012). However, the environmental justice literature does more than UPE to explore the patterns that produce socio-spatial environmental inequality (Cook and Swyngendouw, 2012). So it broadens analysis of (in)justice to questions on the role of gender, race, age and sexuality, alongside class in determining unequal distribution of costs and benefits from the environment and its degradation (Buckingham and Kulcur, 2009; Schlosberg, 2013; Schweitzer and Stephenson, 2007; Urkidi and Walter, 2011). Further, EJ scholars have convincingly argued against reductionist definitions of justice exclusively engaging with distribution concerns. Their multidimensional conception of environmental justice entails, first, the *processes* underlying inequitable distribution (Urkidi and Walter, 2011; Schlosberg, 2007). This dimension of justice, referred to as procedural justice, poses meaningful participation, encompassing fairness, inclusion in decision-making and access to information at the core of environmental justice (Holifield, 2012; Holifield et al., 2009; Walker, 2009). Additionally, EJ has made an attempt to include emotional aspects into its concept of justice, by arguing the need to recognise individual rights and collective identities, and their particular needs (Urkidi and Walter, 2011; Walker 2009). In this perspective, rather than focusing on elimination of inequalities, the quest for justice should take the "avoidance

of 'humiliation' or 'disrespect'" as a starting point (Honneth, 2004: 351). Last, the exploration of the relation between place and stigma, in which misrecognition of people and locality are seen as entwined (Walker 2009), offers important insights on the sanitary and unsanitary city

Collectively, EJ and UPE frameworks call us to pay attention to processes of production and distribution of wastewaters and to look beyond inequalities of distribution. However, current analytical frameworks are largely based on US contexts (EJ), or focus questions of inequality on urban infrastructure (UPE). Most research that can be associated to dimensions of sanitation justice is concerned with the presence or absence of infrastructure. In particular, UPE scholars show how sanitation infrastructures reinforce the connections and fragmentations of social groups and the spaces in which they live (Iossifova 2015; Morales 2015; Morales et al., 2014). And, while EJ scholarship has broadened the range of social justice concerns to include climate and food justice, transportation, access to countryside and green space, land use, water quality and availability (Schlosberg, 2013), sanitation justice has not been explored in a context where non-sewered systems are the norm and the majority of low income dwellers has access to latrines, or is forced to opt for other informal disposal methods, such as 'flying toilets' (WSP, 2013). Further, unlike the sewerage systems, onsite infrastructures (pit latrines and septic tanks) require additional services to ensure safe disposal of fecal sludge. How then to understand sanitation inequalities in the context of rapidly urbanising African cities, characterized by heterogeneous service modalities and extreme socio-economic inequalities? To address this current gap within ecological justice scholarship we apply the analytical tools from both UPE and EJ to develop a concept of sanitation justice. We explore the dimensions of justice specifically in regards to access to sanitation in cities of sub-Saharan Africa.

11.3 Distributive Justice: Beyond Unequal Access to Sanitation Infrastructure and Services

11.3.1 Shifting Paradigms From Centralized Public Service to Decentralized Private Services

Up until the 1990s, development interventions in urban sanitation in the global South focused on the construction and operation of large-scale, supply-driven and centralized networked systems (Allen et al., 2006). This approach was reflected in the Drinking Water and Sanitation Decade (1981–1990) where hardware interventions were delivered through the planned expansion of centralized and capital intensive systems. However, at the end of this Decade the UN Economic and Social Council (ECOSOC) report suggested that large scale systems had only benefitted mid and high-income areas. Later, in 1997, the World Bank's strategy for sanitation identified two other drawbacks of the centralized supply-driven approach based on financial rationality: low cost-efficiency (high investment costs versus low number of people served) and low cost-recovery rates preventing service expansion of sewerage utilities (Wright, 1997). The ECOSOC report had already laid the premises for a new strategy based on decentralized low-cost technologies for sanitation services to lower income areas (ECOSOC, 1990). The Delhi Declaration, adopted by 115 countries in 1990, marks the formalization of the shift in sanitation development approaches, identifying low-cost decentralized sanitation technologies as a more realistic solution for low-income areas.

The sanitation strategy promoted by the World Bank and other segments of the development establishment post-1990 centered on user participation in planning and implementation of services, promotion of multiple providers, and the development of a small scale private sector. This strategy entailed a shift from macro to micro projects (centralized to decentralized sanitation system) and required a significant role to be played by NGOs. The rationality of "unbundling" sanitation projects into smaller size components was premised on the potential to bring in more private sector contractors and, thus, more competition and lower prices. In the words of the World Bank,

matching service level to willingness to pay was to ensure the achievement of "optimum coverage with economic efficiency" (Wright, 1997: 7). However, achieving willingness to pay on the part of urban poor residents who needed access to sanitation also required a focus on the user: "[a] demand-based approach requires implementing agencies to find out what potential users want and what resources they have to finance and manage installed systems, and to design systems financing mechanisms, and support structures that are best suited to their needs" (ibid.).

11.3.2 Inequalities in Distributive Justice

As various scholars have noted, for a majority of cities in the global South, unequal access to sanitation is not a new phenomenon, having existed since colonial periods (Kooy and Bakker 2008; Letema et al., 2014; McFarlane 2008; Nilsson 2006). Decentralized onsite sanitation was positioned as an achievable remedy to this inequality, ensuring "adequate" services to all. The MDGs developed a set of criteria for what constituted adequate onsite sanitation and these were pursued through development initiatives.

The sanitation landscape that characterizes most sub-Saharan cities, however, is not only disappointing in terms of the distribution of centralized and decentralized infrastructure but also in the distribution of services associated to those infrastructures. Unlike centralised waterborne systems, in which evacuation, transport and treatment of sludge are under the responsibility of the service provider, these responsibilities are passed on to the end user of onsite sanitation systems. The user thus becomes responsible for construction and maintenance, including arranging the emptying of onsite systems. This is problematic because it means that only those end-users who can afford to assume these responsibilities have access to these systems. It also encourages low income urban residents to opt for cheaper, less environmentally safe, infrastructural solutions (soak pits versus septic tanks), and maintenance (sludge removal from septic tanks, emptying of unlined pit latrines). As reviewed by Jenkins et al. (2015) for Dar es Salaam, the majority of residents are unable to access safe pit emptying services either because of unaffordable prices or because of unavailability of the service. Consequently, pit latrines are very rarely emptied and when they are it is with improperly followed health safety equipment or procedures (Tsinda et al. 2013).

The inequalities in sanitation infrastructure and the services it requires translates into highly uneven exposure to environmental risks. Poor operation and maintenance of onsite sanitation facilities increases exposure to fecal contamination of shallow sub-surface and/or piped water supply and, thus, increases risks of contracting diarrheal diseases (Ashbolt, 2004; Bain et al., 2014; Sarpong et al., 2016). A study of sanitation in Kigali identified the most common sanitation service (traditional pit latrines) as one of the highest public health risks (Tsinda et al., 2013). These negative health impacts are exacerbated by the fact that inadequate access to sanitation is often coupled with poor access to safe drinking water.

11.3.3 Sanitation Justice in Kampala: Uneven Coverage and Services

The global shift to decentralised onsite sanitation had a direct impact on the Ugandan sanitation sector. Although sanitation infrastructure in Ugandan cities have always been fragmented, the declared intention of the government was to provide publically managed centralized services in the capital city (Letema et al., 2014). At the time of its establishment in 1972, Uganda's national water utility was named the National Water and Sewerage Corporation. The name reflected the ambition that, one day, this para-statal organization would provide wastewater services to the entire country. However, in 1997 responsibility for provision of sanitation was transferred from the state to its

citizens. Sanitation became a household responsibility, while the government's responsibility was to facilitate the private sector. This shift towards "unbundling" of sanitation infrastructure in Kampala was institutionalised with the 1997 Strategic Framework for Reform (SFR) for the capital. The strategic framework required the downsizing of staff within the Kampala City Council and the liberalization of basic service delivery (World Bank, 2007). Kampala's subsequent Declaration on Sanitation (1997, Preamble) that same year envisioned a future where "service delivery will be enhanced through the increased participation of the private and social intermediary sectors (NGOs)."

The district of Kawempe, one of the fastest growing informal settlements in Kampala, provides a clear example of the sanitation reality as a result of the unfolding of the SFR and its Declaration on Sanitation. Surveys in the district reveal very low levels of sanitation coverage: between 64% and 75% of the approximately 260,000 inhabitants are without access to adequate sanitation (; Isunju et. al., 2013; Katukizaa et. Al., 2010; Kiyimba, 2006; UBOS, 2005; SSWARS, 2013), and the majority of residents relying on shared facilities (CIDI and WaterAid, 2008). These low levels of coverage persist despite the ongoing programs of many NGOs working in this district to increase sanitation infrastructure coverage and improve environmental conditions. The approach used in these programs of Plan international, WaterAid, CIDI, SSWARS and others, entails matching infrastructures with willingness to pay by focusing on more affordable or low cost onsite solutions, such as VIP latrines or EcoSan toilets. At the core of this approach is the creation of a supply chain to fill the (presumed) demand once it is created. This involves training community members to construct "different available sanitation options that are suitable to their pockets" (CIDI and WaterAid, 2009: 5). The distribution of sanitary hardware is, thus, delegated to a community-based private sector: "while doing sanitation marketing we came across people that are willing to construct a toilet, manage it perfectly, make sure it is clean, for those people who have no access."[i]

This strategy, however, raises concerns of affordability for the end-user, who may be unable to sustain costs of construction and maintenance and may opt for very low-cost solutions as unimproved pit latrines. Further, coverage does not necessarily entail access. The high number of users of shared facilities, and the elevated cost and limited availability of pit emptying services presents a significant challenge to the safe operation of this "adequate" sanitation service. For the customer, the final price of the pit emptying service depends on the distance and the volume that needs to be discharged. As a result, inhabitants of peripheral areas are being charged a higher price for the service. The public pit emptier provides the service at lower cost, but "many people are competing for them. Since they are five and the population is quiet big, you find that you put in your request and it takes a month."[ii] Besides the limited offer, municipal service providers are also considered to be less responsive: "each time you go there they will tell you 'there is no fuel, we have not budgeted for it… [or] the fuel is there but the truck is down'- you find non-responsiveness."[iii] As a result, many of the sanitation facilities fill up quickly or too unsanitary to use, and residents resort to open defecation or the use of plastic bags – the so-called "flying toilets" – that are dumped in open drainage. These last resort practices are reported as common in all the parishes of Kawempe District (CIDI, 2010; Katukiza et. al, 2010; SSWARS, 2013).

We thus conclude that current onsite sanitation approaches limited to onsite sanitation infrastructure, with services provided to customers on a demand-based, commercial model, are in many contexts distributionally unjust. First, these approaches limit distribution of onsite infrastructures to those who can afford them. Secondly, because they do not adequately account for the distribution of affordable access to necessary emptying and disposal services, the negative environmental effects are concentrated in the poorest settlements, creating uneven distribution of broader development outcomes in relation to environmental health impacts, and subsequently poverty reduction, education, and access to employment.

Rusca M., Alda-Vidal C., Kooy M., "Sanitation Justice? The multiple dimensions of urban sanitation inequalities" in Water Justice, Cambridge University Press: Cambridge, 2017.

11.4 Procedural Justice: The Use of Participatory Approaches

11.4.1 The Use of Participation

As the above section has reviewed, the shift in the sanitation sector in the 1990s has led to increased involvement of non-state actors, transferring responsibility for sanitation service decisions and financing from the government to the individual household. This shift has aligned comfortably with that of grassroots participatory development movements and participatory demand-driven approaches. As has been observed for the water sector, the individualization and commercialization, of sanitation interventions has worked alongside — rather than against — the use of a wide range of options positioned as participatory development approaches (Bakker, 2007; Harris et al., 2012). That these two distinctly different ideological approaches have become conflated in contemporary development interventions is hardly surprising, according to Mosse (2006: 696), who points out that the "twenty-first-century neoliberal reverse 'rolling-back' of the state" relies on "the 'revival' of community […] management" designed primarily to enhance economic efficiency.

Policy literature thus presents participatory approaches and onsite sanitation infrastructure as an effective combination to ensure pro-poor and demand driven (i.e. individualized) services (WSP, 2013). Similarly, the use of participatory approaches in design and delivery of sanitation services are said to ensure informed infrastructure selection and enable development of improved, sustainable and demand-driven urban sanitation services (Eawag-Sandec/WSSCC/UN-HABITAT, 2011; WSUP, 2013). Alongside this use of participation for individualization and commercialization, the move towards participatory approaches is also framed as a democratization of sanitation services and a shift away from top-down and technocratic solutions. Participation in this definition is seen as a community-driven bottom-up process of self-management, which has the potential of ensuring local control over basic services and of recognizing and pursuing collective will (Mitlin, 2008).

In response to this sectoral shift, participatory demand-driven approaches within the sanitation sector have proliferated in use, although many were already in existence in the 1980s. Such approaches include household-centred environmental sanitation (HCES), community-led urban environmental sanitation (CLES), community-led total sanitation (CLTS), community health clubs (CHCs), and participatory hygiene and sanitation assessment (PHAST). Although these approaches have their differences, they share a focus on stimulating demand - where it (presumably) does not yet exist - by changing household sanitation behaviour. They often rely on peer pressure, and "name and shame" strategies to coerce desired behavioural change from residents. Once the demand for sanitation has been generated, participatory demand driven interventions aim at ensuring the availability of a diverse range of sanitation products to match different sanitation needs of different urban dwellers (WSP, 2013). For this purpose, these approaches are combined with the promotion of onsite "pro-poor" sanitation infrastructures (Paterson et al., 2007).

However, as has been noted for the water sector, the move towards participatory approaches can also be interpreted as a dwindling commitment of the state to provide services to low-income urban areas. Devolution of sanitation provision responsibilities from the state to individual households is then framed around the more appealing concept of participatory approaches (Mitlin and Thomson, 1995). This more critical perspective raises questions as to the roles and responsibilities of government, communities, households and the private sector in the provision of sanitation infrastructures, the extent to which communities and households are required to "participate," financial sustainability and, more broadly, residents' perspectives on sanitation, their needs and priorities beyond onsite facilities. It also calls on us to recognize the limits that are placed on a definition of participation used to effect such a shift. As noted by Joshi et al. (2016), residents are

not asked if they want to participate in such programs, nor are they asked to participate in defining what they need in terms of "adequate" sanitation as the range of options are pre-selected, and the possibilities for their participation as consumers is already pre-designed.

11.4.2 Participating as Consumers

The World Bank's strategy for sanitation (World Bank 1992) describes the traditional supply driven approach as "one in which planners and engineers assess the needs of the poor, and then decide what type of service will be provided" (Wright, 1997: 1). Here, the traditional supply-driven approach is framed as a process of decision making that excluded poor citizens. This lack of procedural justice was supposed to be solved by the shift to decentralized sanitation infrastructure, where the poor can decide what option they want. Of course, in this approach, residents are included in the process as clients and customers – rather than citizens – since their decisions about what they want are based on the affordability of different options. Participation in the process of decision making is thus directly linked to the commercialization of sanitation services. At the core of the new approach marked by the Delhi Declaration is the idea that "progress and continuing success depend most on responding to consumer demand. A program's designers and managers must understand that they are selling a product, not provisioning a service. Where sufficient demand exists, the facilities and services offered must be tailored to that demand; where demand is not strong, it must be stimulated" (World Bank, 1992: 7). This is made explicit in the Word Bank's *a posteriori* reflection on the Water and Sanitation Decade (1980-1990) in which it proposes a "consumer-oriented" approach which looks at user as customers and sanitation services as products: "a latrine is a product which one seeks to persuade people to acquire" (World Bank, 1992: 43).

11.4.3 Participation and Justice in Kampala

In the strategies and policies adopted in the 1990s in Uganda, participation in delivery of sanitation was equated with self-help or individual service provision, rather than being mobilized as an instrument for empowerment. The market-based principles, which are central to social marketing techniques, and the support to the private sector to provide facilities and sanitation services completed this consumer-oriented definition of participation.

Following this approach dictated by the Bank and the Ugandan government, NGOs in Kawempe have focused on demand creation through sanitation marketing. As stated by a representative of one of the local NGOs, "we do sanitation marketing to promote ownership and responsibilities and market it as a social good."[iv] The participation of individuals in the construction and maintenance of their own sanitation infrastructure is presumed to ensure the sustainability of the project intervention. Again, in the words of a local NGO staff, facilities break down because "people don't own them and there is no sense of sustainability." On the other hand, "when you own your own facility you cannot let it die […] If you own the toilet it means that you can take care of it: since you have invested money you cannot let it destroy." This opinion echoes the rationalities of global sanitation policy, where financial subsidies are detrimental to the sustainability of sanitation interventions and need to be eliminated: "at household [level] I do not think subsidies work, it should be left to individual responsibility."[v] These statements conveniently overlook the fact that the minority of upper class residents connected to what is often a very small centralized sewerage system in the urban core have had their infrastructure entirely subsidized.

Generation of demand in Kawempe is aggressively pursued by the targeting the participation of landlords: they own the land and generate income from rental, and are considered responsible for

providing a toilet facility. Demand is stimulated by highlighting the monetary value of providing a facility to their tenants: "it must be in relation to money. As long as there is money, this is how we are triggering them. Go for a toilet and increase the status quo of your property. This means more income, because then you can increase the rent of your tenants."[vi] However, while investments by landlords into toilet facilities on their property improves their income and addresses the needs of those residents who can afford these higher prices, this strategy for improving access to sanitation does so at the detriment of the more vulnerable. Higher rental prices are likely to squeeze out the poorest from these units and on to more undesirable land and more marginal conditions. Further, although the provision of a toilet by the landlord does reduce open defecation and reduces health risk, it only addresses a particular step (collection) in the sanitation chain. As noted in Section 11.3, the construction of latrines does not ensure proper wastewater transport treatment and, as such, may not lead to improved environmental conditions. Black and grey waste may still be discharged into open river systems and shallow groundwater used for drinking purposes. Appeals to landlords based on financial benefits of installing toilet infrastructure do not necessarily motivate them to pay for the required sanitation services of transport and treatment, as there is there is no direct financial reward.

We conclude that procedural justice is often not achieved despite the rhetoric of participatory approaches. We find that current sanitation development processes promoting decentralized and onsite solutions as the only realistic options are in fact unjust. Participation in decisions on what is adequate sanitation – to what degree it can also encompass aspects of comfort or local needs – or participation in decisions regarding what infrastructure options should be within the selection process, are not on the table. In addition, the framing of decentralized sanitation options as participatory has served to advance the shift of sanitation as individualized and commercialized, which has negative impacts on distributional justice. On this basis, we argue that the simultaneously public and private nature of sanitation requires a rescaling of the arenas for participation.

11.5. Recognitional Justice: A Matter of Dignity

11.5.1 Understanding Sanitation Needs

The development community is doing more to accept and address the diversity of sanitation issues and needs, including the emotional dimensions of security, comfort, and dignity. This includes the relationship between sanitation and gender-based violence, recognition of menstruation as one aspect of sanitation, and access to sanitation by residents with special needs (Hulland et al. 2015; Wilbur, J. and Jones, H. 2014). This broadening out of the definition of what sanitation is, partly addresses criticism of development priorities that reduce sanitation to defecation, and reduce hygiene to hand washing (Hulland et al. 2015; Rusca et al., 2017). This broadening out of the definition of sanitation is also accompanied by an increasing attention to "for whom" services are provided. Disabled residents, older residents, or female residents, and other categories of social classification determine what sanitation "is" and what residents need it to be.

Other scholarship has also paid attention to the "who" of sanitation, documenting how inequalities in access to sanitation are not only felt in terms of health outcomes but also affect interpersonal relationships and political visibility with subsequent impact on access to income opportunities and land ownership (Jewitt, 2011; Joshi et al., 2011; McFarlane et al., 2014; Morales et al., 2014). The slogan "sanitation is dignity" reflects that the sanitary concerns of most vulnerable citizens are related to emotional dimensions, but issues of self-esteem, stigma, and social acceptance are rarely explicitly addressed when approaching sanitation as only a health issue. For example, in many countries in sub-Saharan Africa, young girls associate communal school toilets with meanings that

go far beyond urinating and defecating; accessing the toilet often entails dangers of sexual harassment and abuses (Leach et al., 2003). Further, social norms that situate defecation and other sanitation related activities (anal cleansing and menstrual hygiene) as taboos pose emotional stress especially for women (Hulland et al., 2015). Although sanitation needs and concerns vary among women from different life stage and locations, menstrual hygiene management is often ranked by many poor urban women as one of the most stressful experiences related to sanitation, together with the lack of private space for conducting hygiene and sanitation routines (Hulland et al., 2015; Lahiri-Dutt, 2014; Joshi et al., 2011). Avoiding smell and dirtiness is also especially important for vulnerable groups such as disabled, elderly or chronically ill people due to the risk of further stigmtization and marginalization (Wilbur and Jones, 2014).

11.5.2 Recognitional Justice in Kampala

In Kampala, sanitation interventions are firmly based in a public health approach: sanitation is defecation and hand-washing. Interventions begin based on the premise that low income urban residents are unaware of appropriate hygiene practices, and therefore have a low demand for sanitation. The interventions of key actors in sanitation programming in informal settlements are primarily focused on increasing demand for sanitation facilities. However, the staff of development organizations working in Kawempe acknowledge that inhabitants already have clear ideas on good hygiene. For local residents, proper hygiene is related to the cleanliness of their private space:

> hygiene is more a priority to them than latrines. You can find people living in one room, but well neat, well clean, even the shoes they leave out. They try: hygiene is important. They keep kitchen utensils clean. The children they try to bath them, because they know that improper hygiene practices immediately lead to diseases.[vii]

This definition of hygiene is however interpreted by NGO staff as a lack of interest in their sanitary definition, which is limited to latrines. The existing sanitary practices of local residents are therefore observed, but overlooked when it comes to designing interventions. Nor do NGO staff take into account the social or psychological dimensions of their sanitation interventions, and which are likely tied to existing hygiene practices. The influence of social considerations in a decision to use "improper" sanitation instead of a communal latrine is illustrated by this statement of a female resident: "when it starts raining, you can only use that latrine when you are sure that you must take a shower; if you do not shower, no one can stand you […] Every time you leave the latrine, the people you meet can tell where you have been. That is why I prefer using the polythene bag at home." (Female resident of Kamapala slums, cited in Kwiringira et al. 2014: 5).

Sanitation interventions in Kawempe also use the strategy of positive and negative peer pressure by residents to change the hygiene behaviour of their friends and neighbours. Peer pressure can come in the form of "shaming" those who continue to practice open defection, or use "flying toilets" as a sanitation solution. Other sanitation interventions go beyond the level of the individual household to target schools or churches as (potential) sites for inducing behavioural change. According to development organizations involved in these interventions, these institutions are critical to trigger change: "if we change behaviour of institutions (schools, churches), people will change behaviour."[viii] However, as has been recently cautioned in critical assessments of these programs, using shame to trigger change risks further marginalizing the poorest in communities who may want to invest in proper sanitation solutions, but cannot afford to do so (Engels and Susilo, 2014), and jeopardizes individual human rights (Bartram et al., 2012).

In conclusion, we highlight the potential injustices associated with programs that socially penalize

those who may want to have clean and comfortable facilities to meet their hygiene needs, but lack the means. Our review on the risks for increasing social stigmas and exclusive practices indicates a nascent acceptance of sanitation as dignity, and the dimension of recognitional justice. However, we hold little hope for the current model of sanitation development to go much beyond the existing definition of sanitation as defecation and hand washing, given the already limited financing for the sector.

11.6 Conclusions*:* from *Improved* to *Just* Sanitation

The development initiatives towards increased access to sanitation under the MDGs have focused on ensuring "improved" access. The Sustainable Development Goals (SDGs) now call for improved access to be affordable, equitable, universal, and sustainable (UN, 2015). However, in the MDGs, and now under the SDGs, improved access is pursued through the promotion of onsite sanitation infrastructure within a development approach that individualizes and commercializes the sanitation sector. This approach is rationalized as a realistic, participatory and sustainable alternative to centralized sewerage networks.

We reviewed this approach through three dimensions of sanitation: distributional, procedural and recognitional justice, developed from EJ frameworks. In our review of the global policy shift towards private decentralized sanitation infrastructure, and its impact within an informal urban settlement in Kampala, we question the justice of both the process, and its impact on developmental outcomes. Through our review we have raised concerns with both the effectiveness of this sanitation development model in terms of what it sets out to do in regards to increasing access, but also identify other dimensions of inequalities which are built into this developmental approach. These inequalities which lay beyond numerical targets or indicators of sanitation coverage can be identified by looked at distribution, procedure, and recognition.

Development initiatives under the SDGs should therefore aspire to a "just" sanitation, rather than "improved" or adequate sanitation. This calls for development practitioners and policy makers to attend to the justice within the development process, as well as the justice of development outcomes, and the relations between them. Moving towards "just" sanitation however first requires an improved understanding of what sanitation is. In the context of sub-Saharan African cities, sanitation is infrastructure, it is services, and it is dignity. Our analyses of inequalities in sanitation – or what is sanitation justice – must acknowledge these multiple dimensions. This means any assessment of access (affordability, universality, equity, sustainability) needs to include access to both infrastructure, the services required for the infrastructure, and impact of this infrastructure and service on individual dignity. Sanitation is each of these, and all of these together. The inequalities related to these dimensions (distribution, procedural, recognitional) are also therefore related and all need to be addressed if under the SDGs, then sanitation access will be affordable, equitable, universal, and sustainable.

Acknowledgments
This project has received funding form INHAbIT Cities, sponsored by the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 656738.

Rusca M., Alda-Vidal C., Kooy M., "Sanitation Justice? The multiple dimensions of urban sanitation inequalities" in Water Justice, Cambridge University Press: Cambridge, 2017.

References

Allen, A., Davila, J.D. and Hofmann P. (2006). The peri-urban water poor: citizens or consumers? *Environment and Urbanization*, **18**(2), 333–51.

Bain R., Cronk R., Wright J., Yang, H., Slaymaker T. and Bartram J. (2014). Fecal contamination of drinking-water in low- and middle-income countries: A systematic review and meta-analysis. *PLoS Medicine*, **11**(5): 1-23.

Bakker K. (2007), The "commons" versus the "commodity": Alter-globalization, anti-privatization and the human right to water in the Global South. *Antipode,* **39**(3): 430-455.

Bartram J., Charles K., Evans B., O'Hanlon L., and Pedley S. (2012). Commentary on community-led total sanitation and human rights: should the right to community-wide health be won at the cost of individual rights? *Journal of Water and Health*, **10**(4): 499-503.

Buckingham S. and Kulcur R. (2009), Gendered geographies of environmental injustice, *Antipode* **41**(4): 659–683.

Bullard, R. D., Mohai P., Saha R. and Wright B. (2008). Toxic wastes and race at Twenty: why race still matters after all these years, *Environmental Law*, **38**(2):371-411.

Bullard, R.D. (1983) Solid Waste Sites and the Black Houston Community. *Sociological Inquiry* **53**, 273-288

Citizens Action for Water and Sanitation (CIDI) and WaterAid, Community Voices for Accountability in the Water and Sanitation Sector, Newsletter, October 2008 – February 2009.

Cook I. R. and Swygendouw E. (2012). Cities, social cohesion and the environment: Towards a future research agenda. *Urban Studies*, **49**(9): 1959–79.

Desai, R., McFarlane, C. and S. Graham (2014), The politics of open defecation: Informality, body, and Infrastructure in Mumbai. *Antipode,* **47**(1): 98-120

Economic and Social Council (ECOSOC), Report of the economic and social council. Achievements of the international water and sanitation decade, A/45/327 New York, NY, USA 13 July 1990.

Engel, S. and Susilo A. (2014). Shaming and Sanitation in Indonesia: A Return to Colonial Public Health Practices? *Development and Change*, **45**(1):157-78.

Graham, J. P. and Polizzotto, M. L. (2013). Pit latrines and their impacts on groundwater quality: A systematic review. *Environmental Health Perspectives*, **121**, 521-30.

Harris, L., Lucy Rodina, M. and Morinville, C. (2015). Revisiting the Human Right to Water from an environmental justice lens. *Politics, Groups, and Identities*, **3**(4): 660-665

Harris L.M., Goldin, J.A. and Sneddon, C., eds. (2013). *Contemporary Water Governance in the global South: Scarcity, marketization and participation*. London: Routledge.

Heynen, N., Kaika M., and Swyngendouw, E. (2006). Urban political ecology: politicizing the production of urban natures. In N. Heynen, M. Kaika and E. Swyngendouw, eds., *In the Nature of Cities: Urban political ecology and the politics of urban metabolism*. London: *Routledge.*

Holifield R., Porter M., and Walker, G. (2009). Introduction spaces of environmental justice: frameworks for critical engagement, *Antipode,* **41**(4): 637-58.

Holifield R. (2012). Environmental justice as recognition and participation in risk assessment: Negotiating and translating health risk at a superfund site in Indian Country. *Annals of the Association of American Geographers*, **102**(3): 591-613.

Honneth, A. (2004). Recognition, redistribution, and justice, *Acta Sociologica*, **47**(4): 351-64.

Hulland, K., Chase, R., Caruso, B., Swain, R., Biswal, B., Sahoo, K., Panigrahi, P. and Dreibelbis R. (2015). Sanitation, stress, and life stage: A systematic data collection study among women in Odisha, India, *PLoS ONE* **10**(11): 1-17.

Iossifova, D. (2015). Everyday practices of sanitation under uneven urban development in contemporary Shanghai, *Environment and Urbanization,* **27**(2): 541–54.

Isunju, J. B., Etajak, S., Mwalwega, B., Kimwaga, R., Atekyereza, P., Bazeyo, W., and Ssempebwa,

Rusca M., Alda-Vidal C., Kooy M., "Sanitation Justice? The multiple dimensions of urban sanitation inequalities" in Water Justice, Cambridge University Press: Cambridge, 2017.

J. C. (2013). Financing of sanitation services in the slums of Kampala and Dar es Salaam. *Health*, **5**(4): 783–91.

Jenkins M., Cumming, O. and Cairncross, S. (2015). Pit latrine emptying behavior and demand for sanitation services in Dar Es Salaam, Tanzania, *International Journal of Environmental Resources and Public Health,* **12**, 2588-611.

Jewitt, S. (2011), Geographies of shit: Spatial and temporal variations in attitudes towards human waste, *Progress in Human Geography,* **35**(5): 608–26.

Joshi, D., B. Fawcett, and Mannan F. (2011). Health, hygiene and appropriate sanitation: Experiences and perceptions of the urban poor, *Environment and Urbanization* **23**(1): 91–111.

Joshi, D., Kooy, M. and van den Ouden, V. (2016). Development for children, or children for development? Examining children's participation in school-led total sanitation programs, *Development and Change,* (**47)** 5: 1125–1145.

Kampala Declaration on Sanitation, Republic of Uganda National Sanitation Forum, 824 LJG97,
17th of October, 1997, accessed at http://www.ircwash.org/sites/default/files/824-UG-14784.pdf

Katukizaa, A. Y., Ronteltap, M., Oleja, A., Niwagaba, C. B., Kansiime, F., and Lensa, P. N. L. (2010). Selection of sustainable sanitation technologies for urban slums. A case of Bwaise III in Kampala, Uganda. *Science of The Total Environment*, **409**(1): 52–62.

Kiyimba, J. (2006) Identifying the levels of satisfaction, need and representation–Citizens action survey report in Kawempe Division for improvement of people's lives. Community Integrated Development Initiatives (CIDI) and Water Aid: Kampala.Kooy, M. and Bakker, K. (2008). Splintered networks: The colonial and contemporary waters of Jakarta, *Geoforum*, **39**(6):1843-1858.

Kwiringira, J., Atekyereza, P., Niwagaba, C, and Günther, I (2014). Descending the sanitation ladder in urban Uganda: evidence from Kampala Slums. BMC Public Health, **14**(1): 624.

Lahiri-Dutt, K. (2014). Medicalising menstruation: A feminist critique of the political economy of menstrual hygiene management in South Asia, *Gender, Place & Culture*, **22**(8): 1158–76.

Leach, D., Fiscian, V., Kadzamira, E. and Machakanja P. (2003). *An investigative study of the abuse of girls in African schools*, Educational Papers, Department for International Development, London.

Letema, S., van Vliet, B. and van Lier J. (2014). Sanitation policy and spatial planning in urban east Africa: Diverging sanitation spaces and actor arrangements in Kampala and Kisumu, *Cities,* **36**, 1–9.

Lüthi, C.; Morel, A.; Tilley,E., and Ulrich, Lukas. (2011) Community-Led Urban Environmental Sanitation Planning: CLUES Complete Guidelines for Decision-Makers, Eawag-Sandec/WSSCC/UN-HABITAT.

Lüthi, C., McConville, J. and Kvarnström, E. (2010). Community-based approaches for addressing the urban sanitation challenges, *International Journal of Urban Sustainable Development*, **1** (1-2): 49–63.

Matagi, S.V. (2002). Some issues of environmental concern in Kampala, the capital city of Uganda. *Environmental Monitoring and Assessment*, **77**(2), 121–38.

McFarlane, C. (2008). Governing the contaminated city: Infrastructure and sanitation in colonial and post-colonial Bombay, *International Journal of Urban and Regional Research*, **32**(2): 415–35.

McFarlane, C., Desai, R. and Graham, S. (2014). Informal urban sanitation: Everyday life, poverty, and comparison, *Annals of the Association of American Geographers*, **104**(5): 989–1011.

Morales, M. (2015), My pipes say I am powerful: Belonging and class as constructed through our sewers. *WIREs Water,* **3**(1): 63-73.

Morales, M., Harris, L. and Aberg, G. (2014). Citizenshit: The right to flush and the urban sanitation imaginary, *Environment and Planning A,* **46**(12): 2816–33.

Mosse, D. (2006). Collective Action, Common Property and Social Capital in South India: An Anthropological Commentary, *Economic Development and Cultural Change*, **54**(3): 695– 724.

Rusca M., Alda-Vidal C., Kooy M., "Sanitation Justice? The multiple dimensions of urban sanitation inequalities" in Water Justice, Cambridge University Press: Cambridge, 2017.

Nilsson, D. (2006). A heritage of unsustainability? Reviewing the origin of the large-scale water and sanitation system in Kampala, Uganda, *Environment and Urbanization,* **18**(2): 369–85.

Paterson C, Mara D., and Curtis T. (2007). Pro-poor sanitation technologies, *Geoforum*, **38**(5): 901–907.

Perreault, T., Wraight, S. and Perreault, M. 2012. Environmental injustice in the Onondaga lake waterscape, New York State, USA. *Water Alternatives* **5**(2): 485-506.

Rusca M., Alda-Vidal C., Hordijk M., and Kral, N. (2017). Bathing without water: stories of everyday hygiene practices and risk perception in urban low-income areas, *Environment & Urbanization*, in press.

Sarpong Boakye-Ansah A., Ferrero G., Rusca M., and van der Zaag P. (2016). Inequalities in microbial contamination of drinking water supplies in urban areas: the case of Lilongwe, Malawi, *Journal of Water and Health*, **14**(5): 851-863.

Sustainable Sanitation & Water Renewal Systems (SSWARS) (2013). Baseline study to determine access to basic sanitation in Bwaise I, Bwaise II and Natete parishes, GIZ and German Cooperation: accessed online http://www.sswarsuganda.org/phocadownloadpap/sanitation_baseline_bwaise_and%20_natete_april2013.pdf

UBOS (2002) Uganda population and housing census Main report. Uganda Bureau of Statistics, Kampala-Uganda. Accessed online http://www.ubos.org/onlinefiles/uploads/ubos/pdf%20documents/2002%20Census%20Final%20Reportdoc.pdf

UN, Transforming our world: the 2030 Agenda for Sustainable Development, General Assembly, A/RES/70/1, New York, NY, USA 25 September 2015.

Swyngedouw, E. (2004). *Social power and the urbanization of water: Flows of power*: Oxford: Oxford University Press.

UN-HABITAT, 2003. *Water and Sanitation in the World's Cities: Local Action for Global Goals*, London: Earthscan Publications Ltd.

UNICEF/WHO (2015). Progress on sanitation and drinking water – 2015 update and MDG assessment. Joint Monitoring Programme (JMP) Page 17. Accessed online http://www.wssinfo.org/fileadmin/user_upload/resources/JMP-Update-report-2015_English.pdf

Urkidi L. and Walter, M. (2011). Dimensions of environmental justice in anti-gold mining movements in Latin America, *Geoforum*, **42**, 683–95.

Walker, G. (2009). Beyond distribution and proximity: Exploring the multiple spatialities of environmental justice, *Antipode,* **41**(4): 614-36.

Wilbur, J. and Jones, H. (2014). 'Disability: Making CLTS Fully Inclusive', Frontiers of CLTS: Innovations and Insights, Issue 3: 1-20, Brighton: IDS

World Bank (2007). Kampala institutional and infrastructure development adaptable program loan (APL) project in support of the Strategic Framework for Reform for Kampala urban development program, WB Report No: 35847-UG.

World Bank (1992). Sanitation and Water Supply: practical lessons from the decade, Washington, DC: World Bank.

Wright, Albert M. 1997. *Toward a strategic sanitation approach: improving the sustainability of urban sanitation in developing countries*. Water and sanitation program. Washington D.C. : World Bank Group.

World Sanitation Program (2013). *Targeting the Urban Poor and Improving Services in Small Towns*. Poor Inclusive Urban Sanitation: An Overview. Washington, DC. Retrieved from http://www.wsp.org/sites/wsp.org/files/publications/WSP-Poor-Inclusive-Urban-Sanitation-Overview.pdf.

World Sanitation for the Urban Poor (2013). Getting communities engaged in water and sanitation projects: Participatory design and consumer feedback, Topic Brief, TB#007: 1-12.

Rusca M., Alda-Vidal C., Kooy M., "Sanitation Justice? The multiple dimensions of urban sanitation inequalities" in Water Justice, Cambridge University Press: Cambridge, 2017.

[i] Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Urban WASH Coordinator, Kampala, May 2011.
[ii] Community Integrated Development Initiatives, Citizens Actions for Water and Sanitation Coordinator, Kampla, April 2011.
[iii] Ibidem
[iv] Community Integrated Development Initiatives, Citizens Actions for Water and Sanitation Coordinator, April 2011
[v] Ibid.
[vi] Ibid.
[vii] Urban poor Liaison Unit – National Water and Sewerage Corporation representative - Kawempe Division, Kampala, May 2011
[viii] Community Integrated Development Initiatives, Citizens Actions for Water and Sanitation, Community Mobilizer, April 2011.